

The Hong Kong Polytechnic University

Subject Description Form

Subject Code	LGT5073
Subject Title	Risk Management in Operations
Credit Value	3
Level	5
Normal Duration	One Semester
Pre-requisite / Co-requisite/ Exclusion	None ISE548 Risk and Crisis Management
Objectives	<p>This subject seeks to develop the knowledge and analytical/practical skills necessary in organizations, with strong emphasis on operations management and quality management, for making risk management decisions to ensure business continuity through the application of the principles and practices of the full spectrum of entire risk management programme, covering risk management, business continuity (contingency) planning and crisis management.</p> <p>This subject contributes to the following Intended Learning Outcomes for MSc in Operations Management:</p> <ul style="list-style-type: none">• #2: Develop the specific operations management knowledge
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none">Analyze the inherent risks in businesses and operations by applying the correct and basic principles and fundamental understanding of risk and risk management.Comprehend the logical and sequential approach of risk management comprising identification, assessment (analysis and measurement), selection of risk management strategies, implement appropriate risk management solutions and actions, and finally measure and evaluate risk management performances.Use the correct risk management concepts to devise appropriate strategies and tactics for risk management, business continuity (contingency) plans, and crisis management plan.Be familiar with risk management in operations to a level that is adequate for continued self-enhancement of knowledge and practical applications of risk management, business continuity (contingency) planning and crisis management.

	<p>e. Explore and understand how emerging technologies (for examples, artificial intelligence, blockchain, cloud computing etc.) lead to emerging risks, crises and disruptive events that cause negative and positive impacts on business objectives, and how the emerging risks, crises and disruptive events are managed by risk management, business continuity (contingency) planning and crisis management respectively.</p>
<p>Subject Synopsis/ Indicative Syllabus</p>	<p>Introduction and Understanding the Correct Principles and Concepts of Risks: origin of risk, definition of risk, elements of risk, risk and uncertainty, risk perception, risk exposure, risk response, classification of risk, sources of risk, causes of risk, typical organizational risks in businesses and operations, and supply chain risks.</p> <p>Fundamental of Risk Management: development of risk management, understanding of risk management, contributions of risk management, roles and responsibilities for risk management, and enterprise of risk management.</p> <p>Risk Management Process for Negative Risks: the logical and sequential steps of risk management process covering determination of risk management objectives (aligns with corporate objective), identification of all potential and inherent risks, assessment and evaluation of risks (including risk analysis, risk measurement and the use of risk matrix), selection of risk management strategies, identification of risk management actions (the logical steps to identify risk problems and root causes (risk factors and hazards) on the basis to determine the risk management actions), implementation of risk management actions, and finally the performance measurement of the effectiveness and efficiency of risk management actions.</p> <p>Risk Management Strategies and Techniques: risk management strategies for negative and positive risks, the corresponding techniques to manage negative risks, and the use of derivatives to hedge and manage speculative risks.</p> <p>Business Continuity (Contingency) Planning and Crisis Management: the extension of the entire risk management programme to cover business continuity (contingency) planning and crisis management, the understanding, basis and purposes of business continuity (contingency) planning and crisis management, and the details of preparing and implementing business continuity (contingency) planning and crisis management.</p> <p>Risk Culture: national culture and organizational culture, chain effect of culture, overview of organizational culture and its determinants, risk and organizational culture, risk culture, and revisit of risk perception and risk attitude.</p> <p>Supply Chain Risk and Risk Management: fundamental of supply chain risks, overview and understanding of supply chain risk management, and supply chain risk management process.</p> <p>Entire Risk Management Programme and Emerging Technologies: negative and positive risks (technology risks) arising from emerging technologies (for examples, artificial intelligence, blockchain, cloud computing etc.) Business</p>

	continuity (contingency) planning and crisis management to manage disruptive event and social media crisis respectively arising from emerging technologies.																																												
Teaching/Learning Methodology	<p>Lecture: Learn academic concepts and practical techniques/methods of the entire risk management programme aims at allowing students to acquire the correct understanding of the principles and concepts of risk and risk management, and then putting and applying the academic concepts and practical applications of risk management, business continuity (contingency) and crisis management approaches, techniques and methods into contexts.</p> <p>Coursework and final examination: Learn to practically apply risk management, business continuity (contingency) and crisis management approaches, techniques and methods, and to study selected topics in-depth.</p>																																												
Assessment Methods in Alignment with Intended Learning Outcomes	<table border="1" data-bbox="605 688 1529 1108"> <thead> <tr> <th data-bbox="605 688 906 898" rowspan="2">Specific assessment methods/tasks</th> <th data-bbox="914 688 1060 898" rowspan="2">% weighting</th> <th colspan="6" data-bbox="1068 688 1529 825">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th data-bbox="1068 835 1141 898">a</th> <th data-bbox="1149 835 1222 898">b</th> <th data-bbox="1230 835 1304 898">c</th> <th data-bbox="1312 835 1385 898">d</th> <th data-bbox="1393 835 1466 898">e</th> <th data-bbox="1474 835 1529 898"></th> </tr> </thead> <tbody> <tr> <td data-bbox="605 909 906 961">Coursework</td> <td data-bbox="914 909 1060 961">50%</td> <td data-bbox="1068 909 1141 961">✓</td> <td data-bbox="1149 909 1222 961">✓</td> <td data-bbox="1230 909 1304 961">✓</td> <td data-bbox="1312 909 1385 961">✓</td> <td data-bbox="1393 909 1466 961">✓</td> <td data-bbox="1474 909 1529 961"></td> </tr> <tr> <td data-bbox="605 972 906 1024">Final Examination</td> <td data-bbox="914 972 1060 1024">50%</td> <td data-bbox="1068 972 1141 1024">✓</td> <td data-bbox="1149 972 1222 1024">✓</td> <td data-bbox="1230 972 1304 1024">✓</td> <td data-bbox="1312 972 1385 1024">✓</td> <td data-bbox="1393 972 1466 1024">✓</td> <td data-bbox="1474 972 1529 1024"></td> </tr> <tr> <td data-bbox="605 1035 906 1108">Total</td> <td data-bbox="914 1035 1060 1108">100 %</td> <td colspan="6" data-bbox="1068 1035 1529 1108"></td> </tr> </tbody> </table> <p data-bbox="597 1129 1537 1192">Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p data-bbox="597 1213 1537 1318">Since the course focuses on risk management in operations, case analysis and learning from practical and work-based experiences forms an important constituent of students’ learning and assessment.</p> <p data-bbox="597 1339 1537 1549">The coursework assesses the abilities of students to understand, comprehend and apply the knowledge and skills in risk management, together with business continuity (contingency) planning and crisis management, to reinforce and apply the academic principles/concepts and practical applications learnt during the lectures that enable their applications in real-life operational and commercial situations.</p> <p data-bbox="597 1570 1537 1759">The final examination tests the abilities of the students to understand and comprehend all basic concepts, knowledge, techniques and methods of risk management, business continuity (contingency) planning and crisis management; and also their abilities of the students to apply all basic skills to resolve the case analysis and problems in risk management, business continuity (contingency) planning and crisis management.</p> <p data-bbox="597 1780 1537 1869">To reflect the significant technology content in this subject, 10% (or more) of the overall weighting of this subject is based on individual assessment concerning technology-related knowledge.</p>							Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d	e		Coursework	50%	✓	✓	✓	✓	✓		Final Examination	50%	✓	✓	✓	✓	✓		Total	100 %						
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Student Study Effort Expected	Class contact:	
	Lectures / tutorials (if any)	39 hrs.
	Other student study effort:	
	Self-study for preparing lectures, tutorials (if any) and final examination	45 hrs.
	Preparation of coursework	42 hrs.
	Total student study effort	126 hrs.
Reading List and References	<p><u>Recommended Reference Books:</u></p> <ul style="list-style-type: none"> • Blunden, T & Thirlwell, J. (2010). <i>Mastering operational risk</i>. Harlow, England, New York: Financial Times Prentice Hall. • Devlin, E.S. (2007) <i>Crisis management planning and execution</i>. Boca Raton, FL: Auerbach Publications, c2007. • Haimes, Y. Y. (2004) <i>Risk Modeling, Assessment and Management</i>. New York: Wiley. • Handfield, R.B. & McCormack, K. (ed.) (2008) <i>Supply chain risk management: Minimizing disruptions in global sourcing</i>. Boca Raton, Fla.: Auerbach Publications. • Hubbard, D.W. (2009) <i>The failure of risk management: Why it's broken and how to fix it</i>. Hoboken, N.J.: J. Wiley & Sons. • Oliver, E.C. (2011). <i>Catastrophic disaster planning and response</i> [electronic resource]. Boca Raton: CRC Press. • Trim, P.R.J. & Caravelli, J. (ed.) (2009). <i>Strategizing resilience and reducing vulnerability</i>. New York: Nova Science Publishers. <p><u>Recommended Journals:</u></p> <ul style="list-style-type: none"> • International Journal of Risk Assessment and Management • Journal of Risk and Financial Management • Risk Management in Financial Institutions • Journal of Business Continuity & Emergency Planning • Institute of Risk Management (IRM) • The Public Risk Management Association, US (PRIMA) • The Public Risk Management Association, UK (ALARM) • Association of Insurance and Risk Managers <p><u>Recommended International Standard:</u></p> <p>ISO3100 (2018) Risk Management</p>	

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